MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE MASSACHUSETTS LIFE SCIENCES CENTER

DATE: September 20, 2018 TIME: 10:00 a.m. EST

PLACE: Massachusetts Technology Collaborative

2 Center Plaza Suite 200

Boston, Massachusetts

DIRECTORS PRESENT: Mike Kennealy (designee for Secretary Jay Ash)

Julie Chen (designee for UMass President Martin Meehan)

Gary Kearney Peter Parker

Jennifer Sullivan (designee for Secretary Mike Heffernan)

1. Call to Order and Approval of Remote Participation

Mike Kennealy called the meeting of the Board of Directors (the "Board") of the Massachusetts Life Sciences Center (the "MLSC" or "Center") to order at 10:00 a.m. The meeting, having been duly convened, was ready to proceed with its business. Jennifer Sullivan arrived at 11:10 a.m.

2. Approval of Board Minutes

The Board then reviewed the minutes of the June 27, 2018 Board meeting. Upon a motion duly made, seconded and carried, the Board adopted the resolution to approve the minutes.

3. Chair's Update

Mr. Kennealy ceded his time to Travis.

4. CEO Update

Travis McCready introduced Meghan Gerardo as the new Senior Marketing and Communications Associate who has already provided great value to the team.

Mr. McCready then noted Takeda's announcement of its corporate headquarters move with 1,000 employees from Dearfield, Illinois to Massachusetts. He indicated that they have not yet found a location and will likely be looking this Fall. Also on the

business development front, Novo Nordisk is now opening a presence in Cambridge. Gary Kearney noted that this is very exciting due to the company's work on diabetes.

Mr. McCready then mentioned that the Center will be moving to new space in April on Main Street in Waltham which satisfies the Center's requirements to be close to public transportation and maintain reasonable rental costs. Tenant improvements to build out the space have been included in the rent and the space will provide more room to hold Board meetings and other meetings of external parties.

Mr. McCready also noted that at the next Board meeting, Cheryl Sadeli, the Center's Vice President of Finance, will be providing a quarterly report on the financial position of the Center.

In response to a question regarding feedback on the Center's Impact Report, Mr. McCready reported that it had been excellent, with calls from across the nation and even internationally. Respondents were impressed with the transparency of the Center's activities.

5. Milestone Achievement Program

Jennifer Griffin, Vice President of Industry Programs and Relations, presented a proposal to fund another round of the Milestone Achievement Program (MAP). She provided an overview of the FY2015 MAP Program and the success of awardees to attract \$40.8 million in follow-on funding, compete for \$7.7 million in SBIR/STTR federal grant funding, and more than double the number of FTEs currently employed by the companies. Dr. Griffin then presented the rationale for running a new round by sharing data that despite healthcare investment dollars reaching an all-time high, the vast majority of that capital does not fund seed stage companies. MLSC funds would be used to support product development, progress towards clinical evaluation, develop manufacturing strategy and process, and conduct market validation.

Peter Parker mentioned that one of the 2015 awardees was able to raise significant funds due to the endorsement provided by a MAP award. Both Mr. Parker and Mike Kennealy noted that the amount of seed funding has increased dramatically in recent years, but Mr. Parker reported that a large portion of this increase is attributable to venture capital firms forming companies *de novo* with large infusions of funding for world experts in specialized areas. Mr. Parker remarked that this program is one of the

most important things that the Center can do to support early-stage company growth. Dr. Julie Chen applauded the focus on encouraging companies to have mentors and Board members who can guide their growth. Dr. Chen also noted the importance of funds available to support personnel.

Upon a motion duly made, seconded and carried, the Board adopted the resolution to approve \$2,000,000 in funding from the Center's Investment Fund to support MAP.

6. Capital Programs

Travis McCready introduced this segment of the meeting by emphasizing the important role the Center plays to identify infrastructure needs that will accelerate growth in the life sciences ecosystem.

Beth Nicklas, General Counsel and Vice President of Academic & Workforce Programs, and Dr. Jennifer Griffin then presented three capital programs that will be launched in the Fall. Ms. Nicklas reported that the Center would be launching the sixth round of the Competitive Capital Program targeted at providing infrastructure funds for research institutions, incubators, and STEM and workforce training programs that are addressing a gap in the life sciences ecosystem. She indicated that \$30 million would be available for awardees with \$15 million in FY2020 and \$15 million in FY2021.

Dr. Griffin informed the Board of two new capital calls: the Biomanufacturing Innovation Challenge and the Data Sciences Innovation Challenge. These programs seek to spur public-private partnerships with up to \$750,000 for a 2-year project at research institutions working with a company that contributes financial and in-kind resources plus the salary of at least one postdoctoral fellow or data scientist. Dr. Griffin described the goals of the Biomanufacturing Challenge to: (1) foster novel technologies/techniques to manufacture innovative therapies and increase efficiencies; (2) create biomanufacturing infrastructure; and (3) engage industry and create a competitive and attractive environment for expanding biomanufacturing in Massachusetts. She explained that the future of healthcare calls for new therapeutic modalities such as cell and gene therapies and Massachusetts can be on the forefront of these advances.

Mike Kennealy asked how the NIIMBL program was progressing and Travis McCready explained that due to the federal bureaucracy, the program has been slow to execute contracts and get federal funds to awardees. Mr. McCready reported that the

opportunities and challenges in Massachusetts are categorically different than in other states and that this is an example of the Center taking a leadership position in its support of cutting-edge biomanufacturing infrastructure that is in demand by industry partners. Benefits of NIIMBL are that federal money provides matching dollars and Dr. Griffin added that the Center's biomanufacturing experts have remarked on the increased sophistication of the proposals emerging from the NIIMBL competition. Mike Kennealy applauded the slide deck as being incredibly informative.

Dr. Griffin then described the goals of the Data Science Challenge to use high throughput/omics approaches to generate large datasets that can accelerate biomedical research, increase the availability of data, and attract data scientists to life sciences. With the recent explosion of data generation in life sciences, big data solutions can improve the likelihood of success by developing models of target validation and engagement, develop more robust biomarkers for use in precision medicine, reduce clinical trial costs by utilizing rational trial design, and enable rapid identification of new drug targets and resistance mechanisms. She explained the critical need to support and retain data scientists in Massachusetts to enable this innovative work. Board members noted that because digital infrastructure is available globally, the data will also be available outside of Massachusetts. Dr. Griffin responded by indicating that our leadership position should continue to attract top talent and innovation.

7. Miscellaneous

Travis McCready indicated that he would like to engage the Board in the future in a discussion about making equity investments in early-stage companies in Gateway Cities, particularly should the Center be successful in obtaining \$300,000 in grant funding from the federal government. Gary Kearney asked whether there were models of other governmental organizations engaged in such investments and Mr. McCready pointed to TEDCO in Maryland and MassVentures.

Adjourn

Mike Kennealy adjourned the meeting at 11:47 a.m.

List of Materials and Exhibits Used During Meeting:

- Board Agenda
- Minutes from June 27, 2018 Board meeting
- Motion: To approve Milestone Achievement Program
- Update: Competitive Capital Program
- Update: Biomanufacturing Innovation Challenge
- Update: Data Sciences Innovation Challenge